

ABSTRACT OF THE DISCLOSURE

A heat transfer device having a heat source for collecting waste heat from a heat-generating system, the heat transfer device having fins in which the shape of the sides of the

fins is preferably circular according to the general expression $\left(x - \frac{1}{\gamma}\right)^2 + \left(y - \frac{\rho}{\gamma}\right)^2 = \frac{1}{\gamma^2}$,

where $\gamma = \frac{h}{k}$, h is the heat transfer coefficient between the fin and the surrounding fluid, k is

the thermal conductivity of the fin material, $\rho = \frac{q_o}{k\theta_o}$, q_o is the heat flow through the fin

semi-base per unit depth and θ_o is the difference between the temperatures of the heated surface and the surrounding fluid.